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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,219	05/25/2001	Yukiharu Tagawa	740145-198	2762

22204 7590 06/30/2003

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EXAMINER	
PERRY, ANTHONY T	
ART UNIT	PAPER NUMBER
2879	

DATE MAILED: 06/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/864,219	TAGAWA, YUKIHARU	
	Examiner	Art Unit	
	Anthony T Perry	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Peri d for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 January 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) *10-19* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 May 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *3,5* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-10, drawn to a method of manufacturing a discharge lamp classified in class 445, subclass 9.

II. Claims 11-19, drawn to discharge lamp, classified in class 313, subclass 623.

Inventions of Group I and Group II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by another material different process. For example, the product as claimed can be made as follows: the halogen may be introduced into the discharge lamp in the form of a pellet or through a fork gas introduction tube.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with David Safran on May 30, 2003 a provisional election was made with traverse to prosecute the invention of group I, claims 1-10. Affirmation of this election must be made by applicant in replying to this Office action. Claims 11-19 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the

currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster (US 4,808,136).

Regarding claim 1, Schuster teaches a method of manufacturing discharge lamps comprising the steps of providing a discharge vessel that defines a light emitting discharge space and introducing a predetermined amount of mercury and halogen into the discharge space. Schuster teaches that the mercury and halogen are introduced into the discharge vessel by heating at least one halogen-introduction carrier composed of a porous body containing at least one absorbed metal halide (see abstract and col. 2, line 66 – col. 3, line 7). Note compounds that include halogens are commonly referred to as salts.

Regarding claim 7, Schuster teaches the halogen-introduction carrier is a porous body made of a high-melting point metal (see abstract).

Regarding claims 8-9, Schuster teaches that the porous body is made of a metal with a melting point above 250 degrees Celsius but does not specifically state that the metal is tungsten. It has been held to be within the general skill of a worker in the art to select a known material on

the basis of its suitability for the intended use as a matter of obvious design choice. Thus, it would have been obvious to one having ordinary skills in the art at the time the invention was made to have used tungsten as the porous body, since the selection of known materials for a known purpose is within the skill of the art.

With regards to the density of the tungsten porous body, it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. Thus, it would have been obvious to one of ordinary skills in the art at the time the invention was made to provide the porous tungsten body with an appropriate density, since optimization of workable ranges is considered within the skill of the art.

Claims 2-3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster (US 4,808,136) as applied to claim1 above, and further in view of Johnson (US 5,374,871).

Regarding claim 2, Schuster teaches that the halogen-introduction carrier is located inside the discharge vessel. Schuster does not specifically state that the halogen-introduction carrier is heated from an outside source.

However, using an outside source to heat a mercury-introduction carrier is well known in the art as evidenced by Johnson. Since Schuster teaches a porous body containing a predetermined amount of an absorbed compound of mercury and a halogen (salt) one of ordinary skill in the art at the time of the invention would have found it an obvious choice to heat the halogen/mercury-introduction carrier taught by Schuster using an outside source as taught in Johnson.

Regarding claim 3, Schuster doe not specifically state the discharge vessel having a main tube and first and second elongated seal tube sections extending from opposite ends of the main

tube and having electrode bars positioned extending into the discharge space. However, discharge lamps of this structure are well known in the art.

Schuster does not specifically teach the halogen-introduction carrier being secured to an electrode bar. However, it is noted that the applicant's specific location of the halogen-introduction carrier being secured to the electrode bar, does not solve any of the stated problems or yield any unexpected result that is not within the scope of the teachings applied. Therefore it is considered to be a matter of choice, which a person of ordinary skill in the art would have found obvious to select any location inside the discharge vessel for the halogen-introduction carrier as long as the carrier releases the metal halide within the discharge vessel.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster (US 4,808,136) as applied to claim 1 above, and further in view of van der Wolf et al. (US 3,957,328).

Regarding claim 4, Schuster doe not specifically state the discharge vessel having a main tube and first and second elongated seal tube sections extending from opposite ends of the main tube and having electrode bars positioned extending into the discharge space. However, discharge lamps of this structure are well known in the art. Schuster teaches an auxiliary tube connected to the lamp in which the halogen-introduction carrier is disposed (col. 2, line 66 – col. 3, line 7). Schuster does not specifically state that the auxiliary tube is connected to an outer end of one of the seal tube sections or recovering the halogen-introduction carrier after having released the metal halide.

However, Fig. 10 of van der Wolf discloses a method of manufacturing discharge lamps wherein a mercury-introduction carrier 3 is placed in an auxiliary tube 1 which is connected to the sealed tube section of the discharge vessel 10. Van der Wolf teaches that the mercury-

introduction carrier is recovered by removal of the auxiliary tube section after release of the mercury and sealing of the seal tube section to which the auxiliary tube is connected.

The recitation "for re-adsorption with a metal halide and subsequent reuse" has not been given patentable weight because is considered an intended used recitation. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations.

Van der Wolf does not specifically state that the carrier is extracted from the auxiliary tube for re-adsorption with a metal halide and subsequent reuse, however one of ordinary skill in the art would have found it obvious at the time of the invention to have extracted the carrier from the auxiliary tube after removal of the auxiliary tube so that the carrier could be used in the manufacturing of another discharge lamp.

Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster (US 4,808,136) as applied to claim 1 above, and further in view of Rothwell, Jr. (US 4,557,700).

Regarding claims 5-6, Schuster discloses the claimed invention except for the use of mercury bromide as the metal halide. Rothwell teaches that mercury bromide can be used to produce blue-green light (col. 3, lines 30-45). It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. Thus, it would have been obvious to one having ordinary skills in the art at the time the invention was made to have used mercury bromide as the metal halide, since the selection of known materials for a known purpose is within the skill of the art.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster (US 4,808,136) as applied to claim 1 above, and further in view of Sugitani et al. (US 6,060,830).

Regarding claim 10, Schuster does not specifically teach the volume of the discharge space or the amount of halogen of the lamp. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide an appropriate volume of the discharge space and amount of halogen, since optimization of workable ranges is considered within the skill of the art.

Furthermore, Sugitani teaches a high pressure discharge lamp having a discharge space with a volume less than $80mm^3$ (col. 4, lines 17-19) and an amount of halogen within the range of $1.7*10^{-4}$ and $6.7*10^{-4}$ $\mu mol/mm^3$ (col. 5, lines 9-13).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Ikeuchi et al. (US 5,905,341); Mishra et al. (US 4,487,589) ; Cho et al. (US 4,275,330) ; and Scott et al. (US 3,983,440).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Anthony Perry* whose telephone number is (703) 305-1799. The examiner can normally be reached between the hours of 9:00AM to 5:30PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (703) 305-4794. The fax phone number for this Group is (703) 308-7382.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [**Anthony.perry@uspto.gov**].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Kenneth J. Ramsey

KENNETH J. RAMSEY
PRIMARY EXAMINER

Anthony Perry
Patent Examiner
Art Unit 2879
June 16, 2003